

TWO NEW FLEAS FROM SOUTH AMERICA (SIPHONAPTERA).

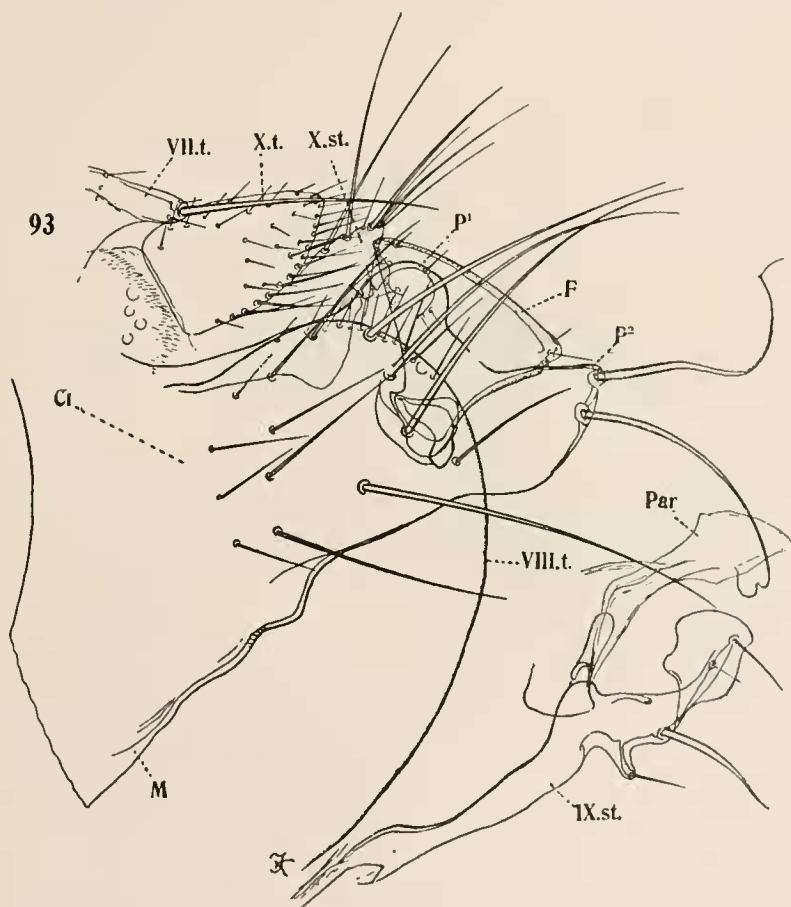
By DR. KARL JORDAN, F.R.S.

(With 5 text-figures.)

1. *Myodopsylla notialis* sp. nov. (text-fig. 93).

♂. Near *M. insignis* Roths. 1903, but posterior bristles of abdominal tergites III to VI not modified into false combs and the genitalia very different.

Pronotal comb apparently contains fewer than 35 spines. Dorsal bristles of posterior row of mesonotum longer than lateral ones, very much longer than



in *M. insignis*, being nearly as long as their distance from base ; in front of the row two dorsal bristles each side also prolonged ; the apex of the mesonotum dorsally collapsed (feebly chitinized or affected by the clearing agent ?). On metanotum each side two apical spines ; dorsal bristles of posterior row some-

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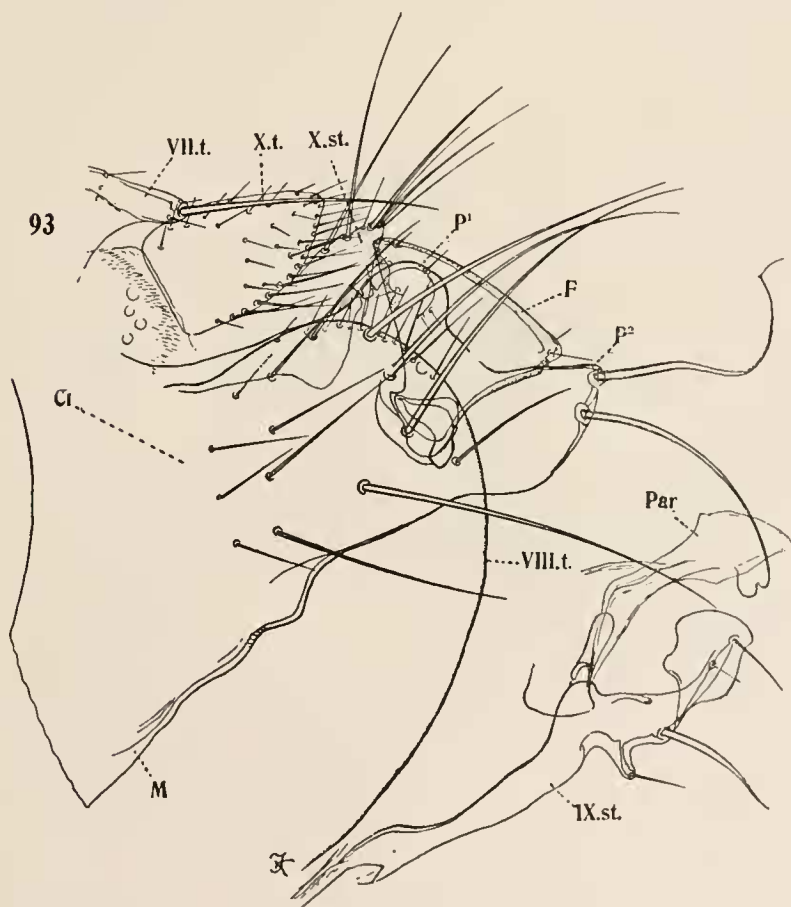
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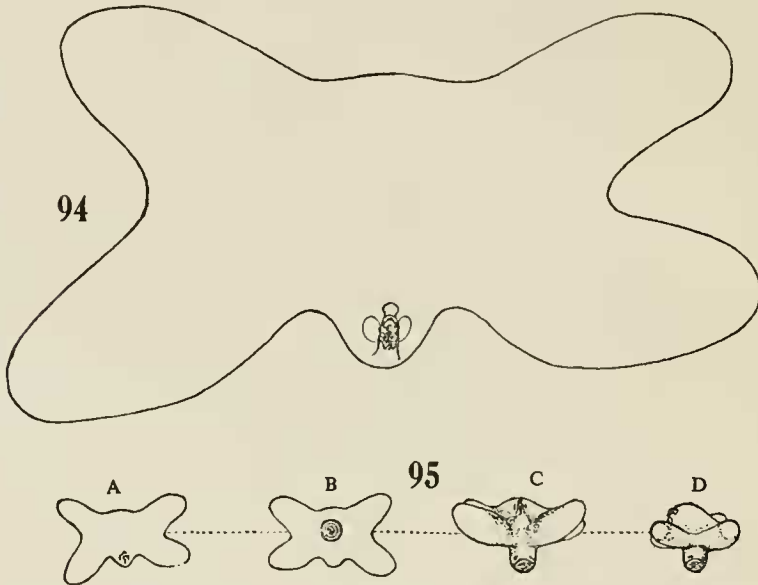
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what shorter than lateral ones and a little thicker, longer than in *M. insignis* and not forming a comb, 13 on the two sides together. On metepimerum 8 or 9 bristles, of which 4 or 5 small, 4 long, the two at posterior margin shorter than the other two long ones and about as thick, not thicker.

On abdominal tergum I 6 dorsal bristles of the posterior row are shorter and thicker than the lower ones, on II only 4, on the other terga none; on I each side two short apical spines; number of bristles: terga I 22, 14, II 13, 16,



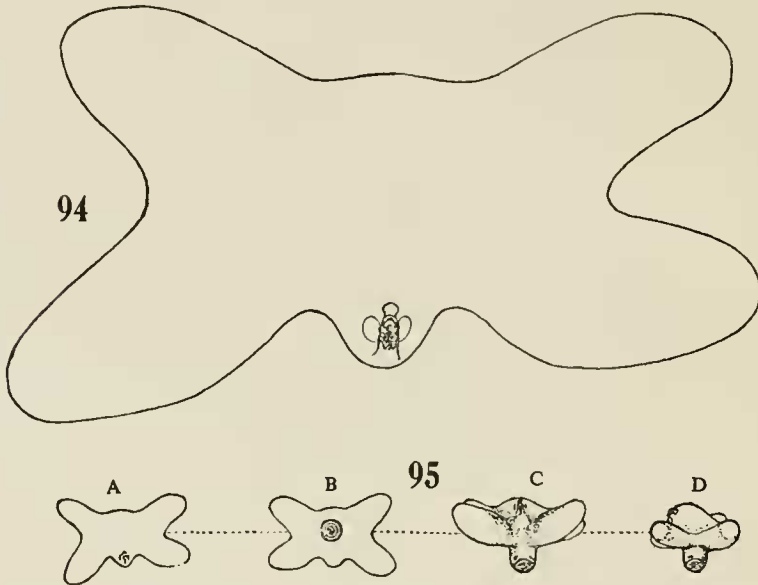
III 9, 16, IV 8, 15, V 7, 13, VI 6, 14, VII 3, 14, on II and III an additional small bristle below stigma; sterna III 2, IV 4, V 2, VI 4, VII 4.

Hindtarsal segment I shorter, being 1.6 times as long as II, in *M. insignis* 1.8 times; apical and subapical bristles of I thicker and longer, the apical one reaching close to apex of II, and the corresponding bristle of II to or beyond apical fourth of III.

Modified Segments.—Tergum VIII (text-fig. 93, VIII. t.) strongly rounded, without an angle; there are 6 or 7 large bristles and about 8 smaller ones at the margin and on lateral surface, and about a dozen thin ones at the dorso-apical margin, most of them on inside. Sternum VIII truncate, with the angles rounded off, at the apical margin a row of 6 bristles, which are much shorter than the segment is broad, near ventral margin a large brush of long thin hairs, and below dorsal margin a densely packed, horizontal, slightly S-shaped, row of about 20 bristles, broadish at base, about as long as the segment is broad, most of them leaning backwards. Clasper (Cl) apically divided by a broad sinus into a round upper process P^1 and a longer lower one P^2 , the latter bearing two long bristles, one at apex and the other below apex. The finger F triangular, the dorsal margin the longest, the ventral margin slightly longer than anterior one. Sternum IX slender in proximal two-thirds, its dorsal margin with rounded hump at two-thirds, opposite this convexity a short process at ventral margin

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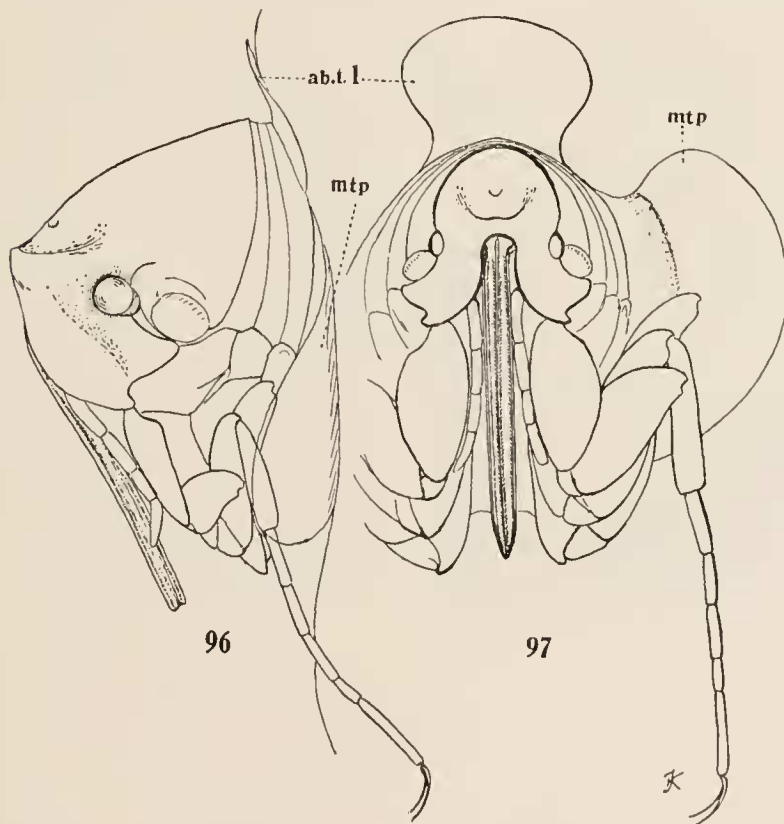
bearing a short bristle, a little farther distal a stout, sharply pointed bristle, about as long as its distance from apex of IX. st., apical lobe nearly as broad as long, rounded distally, incurved dorsally and excurved ventrally, near apex a thin bristle, another farther frontad on inner surface. Anal tergite (X. t.) with numerous bristles along ventral margin.

Length: 2.7 mm. (extended); hindfemur: 0.45 mm.

Brazil: Porto Joffre, Rio S. Lourenço, tributary of Rio Cuyaba, Matto Grosso, ii. 1933, on *Molossus obscurus*; 1 ♂, received from Mr. G. B. Thompson, British Museum (Nat. Hist.).

2. *Tunga terasma* (text-figs. 94-97).

One gravid ♀ from Annapolis, southern part of State of Goyaz, Brazil, 5. xi. 1936, collected by Mr. G. B. Fairchild from within the ventral skin of a soft-tailed armadillo (*Abassous unicinctus*), between the foreleg and neck.



A wonder flea. Whereas the gravid ♀♀ of all the other known species of *Tunga* are as round as a pea, the distended body of the present species is quadri-lobate, the lobes not being quite the same size, but all subcylindrical and round at the end. They are semi-transparent, and long ovarian tubules are more or less plainly visible within. There are two lobes each on right and left sides, one being

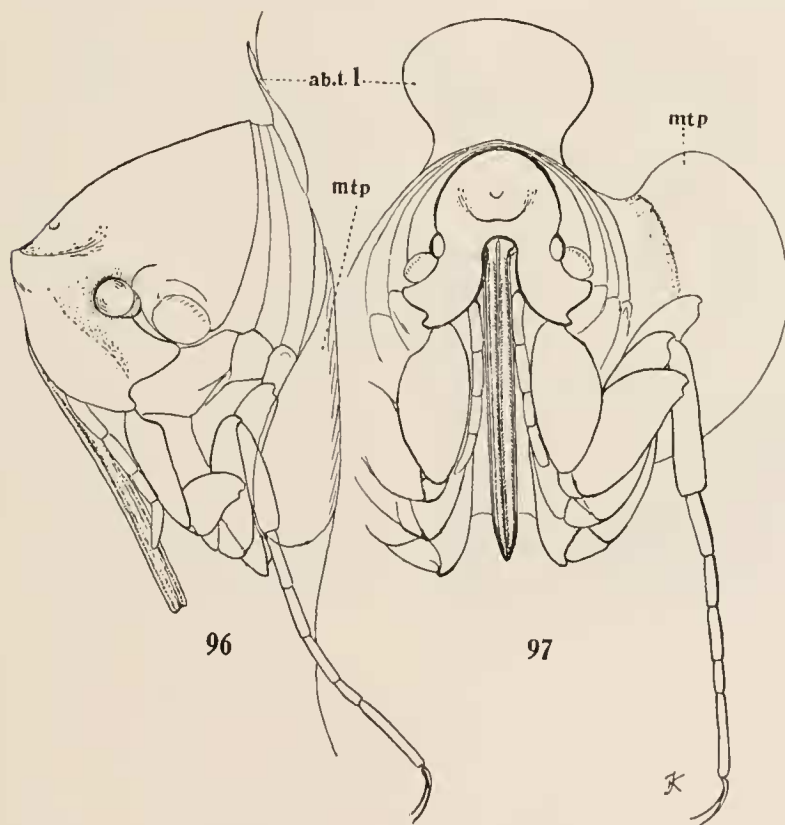
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dorsal and the other ventral. The distended body is covered by the membrane between abdominal segments I and II; head, thorax (inclusive of metepimerum) and abdominal tergum I being separated from the other segments by the distended body. In a frontal view (text-fig. 94 and fig. 95, A) only the anterior portion of the insect is visible, the proboscis and legs pointing downward as indicated in the figures. Figs. A to D are natural size, the greatest transverse diameter of the specimen being 14 mm. In a view from the anal side (B) the abdominal segments appear as concentric rings (only some of them indicated in the figure). Below the head and thorax there is a ventral swelling, a vestigial fifth lobe, quite low and rounded, as shown in fig. C, which represents a ventral view. Here the posterior region of the insect projects as a cylindrical cone, which is about as long as broad, and shows near the concentric rings small sclerites as remnants of segment II. In a lateral view (fig. D), i.e. the specimen so turned that the pair of right lobes of fig. C is directed towards the eyes of the observer (a turning of 90° of fig. C), the head and thorax appear on left side above the left lobe and the anal cylinder below as in fig. C.

The specimen is being kept in liquid, as mounting for the microscope would destroy the peculiarities of the distended body. The drawings of the anterior part of the insect from the side (text-fig. 96) and from front (text-fig. 97), therefore, have no claim to accuracy in the detail. Measurements have been taken with a high power of the binocular dissecting microscope. The few bristles which are visible in the opaque specimen have been left out in the drawings, as they might be more misleading than helpful. Head and thorax are very similar to those of *T. penetrans* L. 1758, the head being a little shorter dorsally. Eye large. Genal margin anteriorly with a short projection. Proboscis ending on a level with posterior coxa. Metepimerum (mtp) appearing as a sort of wing, more than its outer half being detached from the membrane of the distended body and curled sideways and a little forward (text-fig. 96). Above the thorax there is an apically rounded-dilated sclerite also free at its upper end; this is abdominal tergum I (ab. t. I). On the right side the tarsus of foreleg and on left side that of midleg are preserved, they resemble the tarsi of *T. penetrans*, but may possibly be slightly different in chaetotaxy. The cone of posterior abdominal segments is much longer than in distended ♀♀ of *T. penetrans*.

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